WHAT IS CLAIMED IS:

1. A line driver, comprising:

an array of line driver cells for selecting a transmission line from more than two transmission lines;

each of said line driver cells including:

a differential amplifier coupled to receive an input signal;

a first differential switch having an input coupled to an output of said differential amplifier, and an output coupled to a first transmission line of said more than two transmission lines according to a first control signal;

a second differential switch having an input coupled to said output of said differential amplifier, and an output coupled to a second transmission line of said more than two transmission lines according to a second control signal; and

a loopback prevention circuit configured to prevent at least one of said first differential switch and said second differential switch from conducting when circuit power is removed.

2. The line driver of claim 1, wherein said loopback prevention circuit comprises:

a first loopback FET, having a source coupled to said first differential switch, a grounded gate, and a drain coupled to said first transmission line;

a second loopback FET, having a source coupled to said first differential switch, a grounded gate, and a drain coupled to said first transmission line;

a third loopback FET, having a source coupled to said second differential switch, a grounded gate, and a drain coupled to said second transmission line; and

a fourth loopback FET, having a source coupled to said second differential switch, a grounded gate, and a drain coupled to said second transmission line.

3. The line driver of claim 2, wherein said first differential switch comprises:

a first FET switch having a source coupled to said output of said differential amplifier, a drain coupled to said drain of said first loopback FET, and a gate coupled to said source of said first loopback FET; and

a second FET switch having a source coupled to said output of said differential amplifier, a drain coupled to said drain of said second loopback FET, and a gate coupled to said source of said second loopback FET.

4. The line driver of claim 2, wherein said second differential switch comprises:

a third FET switch having a source coupled to said output of said differential amplifier, a drain coupled to said drain of said third loopback FET, and a gate coupled to said source of said third loopback FET; and

a fourth FET switch having a source coupled to said output of said differential amplifier, a drain coupled to said drain of said fourth loopback FET, and a gate coupled to said source of said fourth loopback FET.

5. A line driver, comprising:

an array of line driver cells for selecting a transmission line from more than two transmission lines;

each of said line driver cells including:

a differential amplifier coupled to receive an input signal;

a first differential switch having an input coupled to an output of said differential amplifier, and an output coupled to a first transmission line of said more than two transmission lines according to a first control signal; and

a second differential switch having an input coupled to said output of said differential amplifier, and an output coupled to a second transmission line of said more than two transmission lines according to a second control signal; and

a loopback prevention circuit adaptively configured to prevent at least one of said first differential switch of one of said line driver cells and said second

differential switch of said one of said line driver cells from conducting when circuit power is removed.

6. The line driver of claim 5, wherein said loopback prevention circuit comprises:

a first loopback FET, having a source coupled to said first differential switch of said one of said line driver cells, a grounded gate, and a drain coupled to said first transmission line of said one of said line driver cells;

a second loopback FET, having a source coupled to said first differential switch of said one of said line driver cells, a grounded gate, and a drain coupled to said first transmission line of said one of said line driver cells;

a third loopback FET, having a source coupled to said second differential switch of said one of said line driver cells, a grounded gate, and a drain coupled to said second transmission line of said one of said line driver cells; and

a fourth loopback FET, having a source coupled to said second differential switch of said one of said line driver cells, a grounded gate, and a drain coupled to said second transmission line of said one of said line driver cells.

7. The line driver of claim 6, wherein said first differential switch of said one of said line driver cells comprises:

a first FET switch having a source coupled to said output of said differential amplifier of said one of said line driver cells, a drain coupled to said drain of said first loopback FET, and a gate coupled to said source of said first loopback FET; and

a second FET switch having a source coupled to said output of said differential amplifier of said one of said line driver cells, a drain coupled to said drain of said second loopback

FET, and a gate coupled to said source of said second loopback FET.

8. The line driver of claim 6, wherein said second differential switch of said one of said line driver cells comprises:

a third FET switch having a source coupled to said output of said differential amplifier of said one of said line driver cells, a drain coupled to said drain of said third loopback

FET, and a gate coupled to said source of said third loopback FET; and

a fourth FET switch having a source coupled to said output of said differential amplifier of said one of said line driver cells, a drain coupled to said drain of said fourth loopback

FET, and a gate coupled to said source of said fourth loopback FET.

9. A line driver, for driving one of more than two transmission lines, comprising:

amplifying means for differentially amplifying an input signal;

coupling means for selectively coupling said differentially amplified input signal to one of more than two transmission lines; and

loopback prevention means for preventing said coupling means from conducting when circuit power is removed.

10. A loopback prevention circuit, for a line driver, comprising:

a plurality of loopback FETs, each having a source, a gate coupled to ground, and a drain coupled to a terminal of a transmission line; and

a plurality of FET switches, each having a source coupled to an output of a differential amplifier, a drain coupled to said drain of one of said plurality of loopback FETs, and a gate coupled to said source of said one of said plurality of loopback FETs;

whereby said plurality of said loopback FETs are capable of preventing said plurality of said FET switches from conducting when circuit power is removed.